

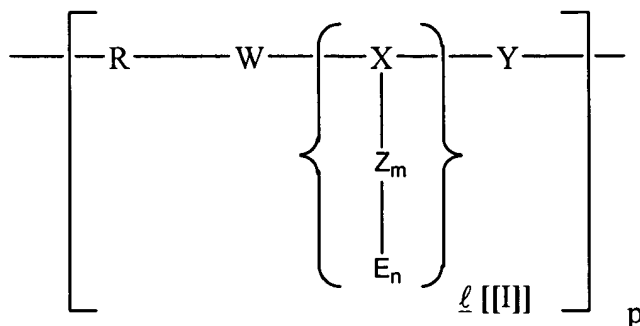
ATTACHMENT A
AMENDMENT TO THE CLAIMS

In re Patent Application of:
Christian Plank, et al.
Application No.: 10/023,317
Filed: December 17, 2001
Docket No.: VOS/022

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A combination of a carrier and a complex comprising a nucleic acid molecule and a charged copolymer of the general formula I

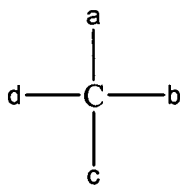


wherein R is an amphiphilic polymer or a homo- or hetero-bifunctional derivative thereof,

and wherein X

i) is an amino acid or an amino acid derivative, a peptide or a peptide derivative or a spermine or a spermidine derivative; or

ii) wherein X is

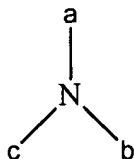


wherein

a is H or, optionally halogen- or dialkylamino-substituted, C₁-C₆ alkyl; and wherein

b, c and d are the same or different, optionally halogen- or dialkylamino-substituted, C₁-C₆ alkylene; or

iii) wherein X is



wherein

a, b and c are the same or different, optionally halogen- or dialkylamino-substituted, C₁-C₆ alkylene; or

iv) wherein X

is a substituted aromatic compound with three functional groupings W₁, Y₁, Z₁ ~~W₁, Y₁, Z₁~~, wherein ~~W, Y and Z have the meanings mentioned below;~~

wherein

W, Y or Z and W₁, Y₁, Z₁ are the same or different ~~groups and selected from~~ CO, NH, O or S or a linker grouping capable of reacting with SH, OH, NH or NH₂;

and wherein the effector molecule E

is a cationic or anionic peptide or peptide derivative or a spermine or spermidine derivative or a glycosaminoglycan or a non-peptidic oligo/polycation or -anion; wherein

m and n are independently of each other 0, 1 or 2; wherein

p preferably is 3 to 20; and wherein

ℓ [[l]] is 1 to 5.

2. (Previously presented) The combination according to claim 1, wherein the amphiphilic polymer is a polyalkylene oxide.
3. (Previously presented) The combination according to claim 2, wherein the amphiphilic polymer is a polyalkylene glycol.
4. (Previously presented) The combination according to any one of claims 1 to 3, wherein X or E is a charged peptide or peptide derivative.
5. (Previously presented) The combination according to claim 1, wherein a ligand for a higher eukaryotic cell is coupled to the copolymer.
6. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the nucleic acid molecule is condensed with an organic polycation or cationic lipid molecule and the complex formed thereby has a charged copolymer of the general formula I bound to its surface via ionic interaction.
7. (Previously presented) The combination according to any one of claims 1 – 3 and 5, containing a therapeutically effective nucleic acid molecule.
8. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the carrier consists of a biologically non-resorbable material.

9. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the carrier consists of a biologically resorbable material.

10. (Original) The combination according to claim 9, wherein the biologically resorbable material is collagen.

11. (Original) The combination according to claim 10, wherein the carrier is a collagen sponge.

12. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the carrier is a carrier which is obtainable by cross-linkage of a copolymer as defined in claim 1.

13. (Previously presented) A method of transferring a nucleic acid molecule into a cell comprising using the combination according to any one of claims 1 – 3 and 5.

14. (Previously presented) A pharmaceutical composition comprising the combination according to any one of claims 1 – 3 and 5.

15. (Canceled).

16. (Previously presented) A kit comprising a carrier and a copolymer or a complex as defined in claim 1.

17. (Currently amended) The combination according to claim 1, wherein ℓ [II] is 1.